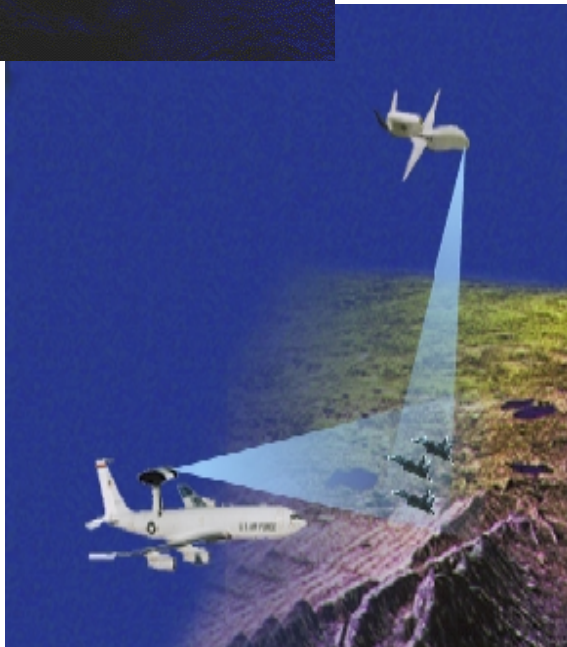
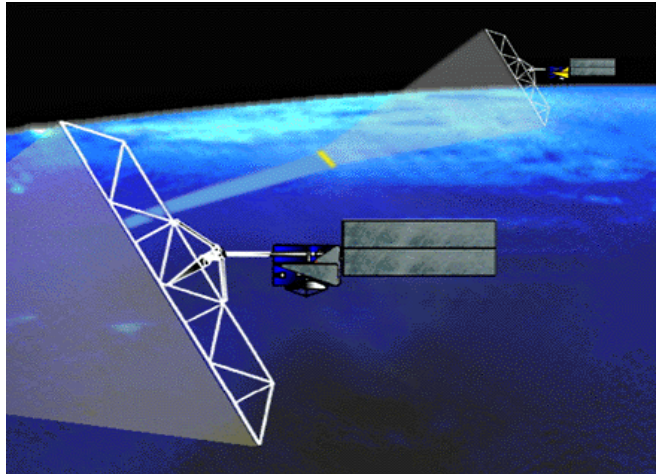


# SENSORS DIRECTORATE



**Col Larry Strawser, Deputy Director**  
AFRL Sensors Directorate

The background of the slide is a composite image. It features a view of the Earth's horizon from space, showing the blue atmosphere and white clouds. In the upper center, there is a small inset image of a satellite in orbit. To the right, a bright, multi-pointed star or sun is visible against the dark sky. A large, solid red triangle is positioned in the lower-left quadrant, pointing towards the center of the slide.

# **SENSORS DIRECTORATE MISSION STATEMENT**

**Develop technologies to  
collect, measure, and  
interpret important military  
information worldwide-- and  
deny the enemy the same.**



# SENSORS DIRECTORATE

## CORP. INFORMATION

MR. E. DAVIS

## ORG. DEVELOPMENT

DR. J. ROYER

## DIRECTOR

DR D. HANSON (ACTING)

## ASSOCIATE DIRECTOR

DR. H. WITTMANN

## DEPUTY DIRECTOR

COL L. STRAWSER

## CHIEF SCIENTIST

DR. H. WITTMANN (ACTING)

## INTEGRATION & OPERATIONS

(SNO) MR. R. RANG

## FINANCIAL MANAGEMENT

(SNF) MS. M. BELL

## CONTRACTING

(SNK) MS. N. ADAMS

## AEROSPACE COMPONENTS & SUBSYSTEMS TECHNOLOGY

(SND)

MR. T. KEMERLEY

## ELECTROMAGNETIC TECHNOLOGY

(SNH)

DR. R. PAYNE

## RF SENSOR TECHNOLOGY

(SNR)

MR. E. MARTINSEK

## EO SENSOR TECHNOLOGY

(SNJ)

COL S. PETERSEN

## SENSOR AUTOMATIC TARGET RECOGNITION (ATR) TECHNOLOGY

(SNA)

MR. J. COVERT

## SIGNATURE TECHNOLOGY OFFICE

(SNS)

MR. R. WILLIAMS

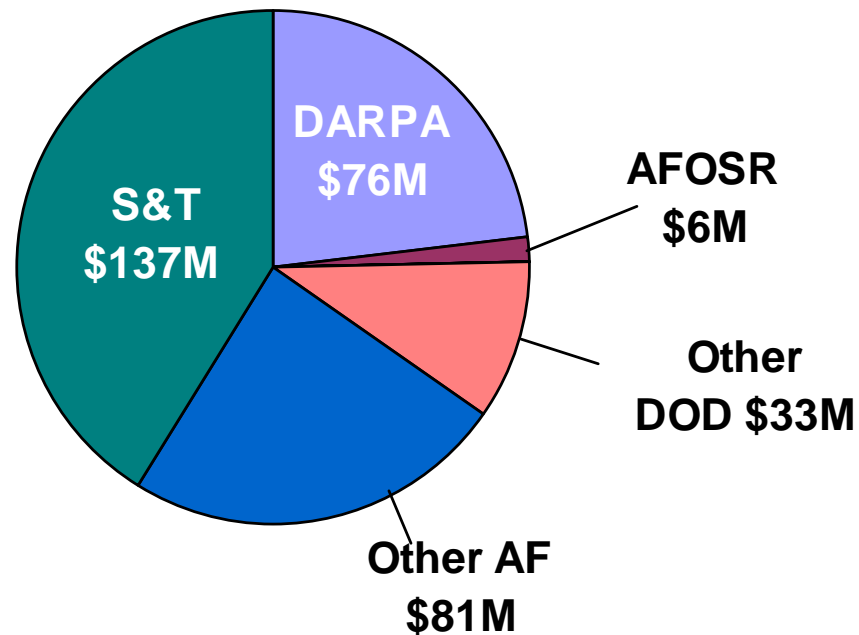
## SENSOR APPLICATIONS & DEMONSTRATIONS

(SNZ)

MR. P. WESTCOTT



# SENSORS DIRECTORATE FY99 FUNDING - ALL SOURCES



AF S&T Only (6.1, 6.2, 6.3) - \$143M

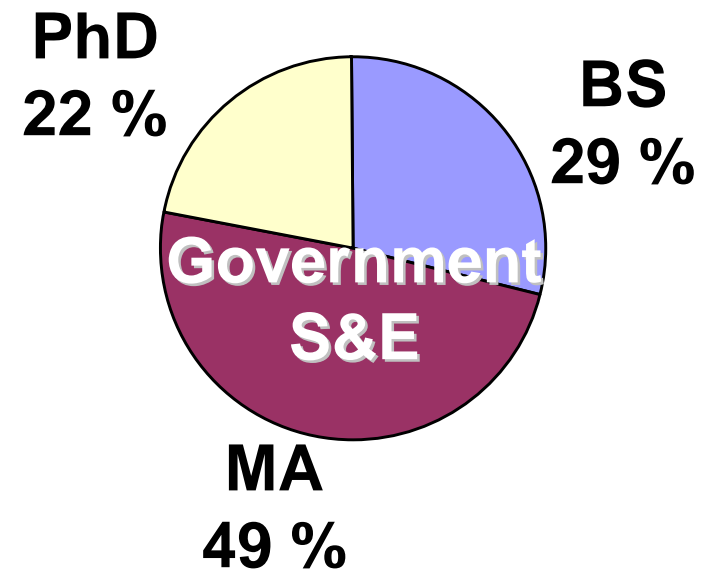
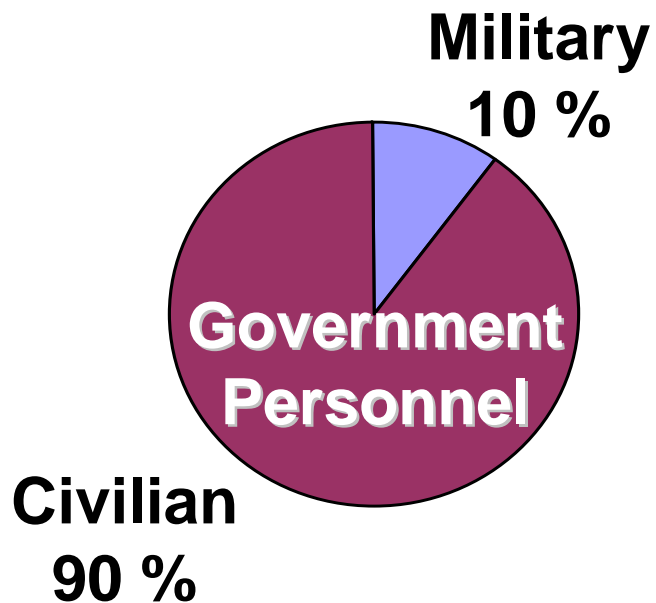
Other Sources - \$190M

Sensors Total - All Sources - \$333M



# SENSORS DIRECTORATE PERSONNEL

<b>Government</b>	<b>599</b>
<b>IPAs</b>	<b>15</b>
<b><u>On-Site Contractors</u></b>	<b><u>299</u></b>
<b>Total</b>	<b>913</b>





# SENSORS DIRECTORATE SITE LOCATIONS

**ROME, NY**  
**56,000 Sq Ft**



**WRIGHT-PATTERSON AFB, OH**  
**465,000 Sq Ft**

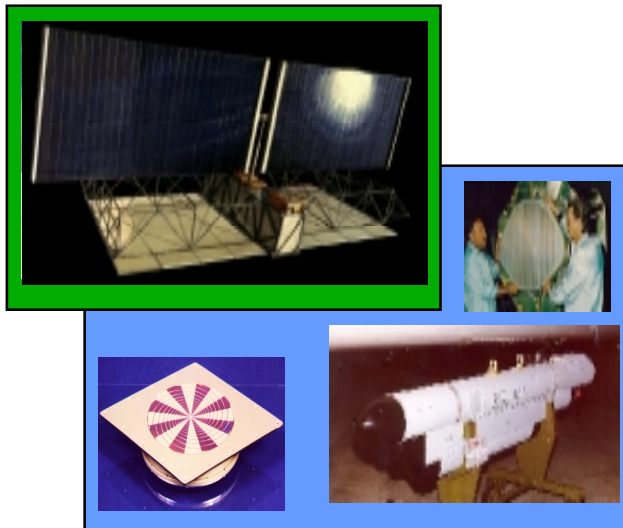


**HANSCOM AFB, MA**  
**110,000 Sq Ft**



# SENSORS TECHNOLOGY THRUSTS

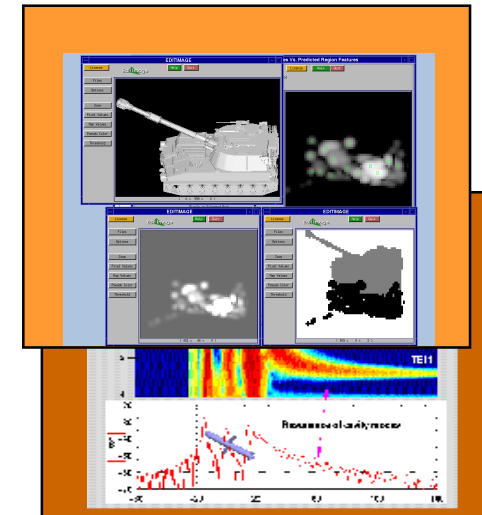
## Radio Frequency Sensors & Countermeasures



## Electro-Optical Sensors & Countermeasures



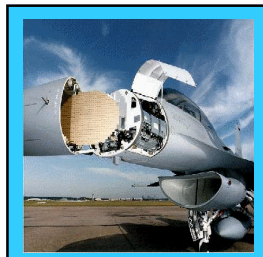
## Automatic Target Recognition & Sensor Fusion







# SENSORS DIRECTORATE APPLICATION OBJECTIVES



**RF**



**EO**



**ATR**

**Intel, Surveillance & Recce**

**Precision Engagement**

**Electronic Warfare**

**Technology Thrusts**

## Objectives

Providing the commander and warrior with a single, complete and accurate integrated battlespace picture in real time.

Providing the global ability to find, fix, track, target, engage, and assess any target of significance in near real-time for the purpose of conducting decisive engagement.

Assuring freedom of employment for friendly forces while degrading enemy capabilities.



Air to Air

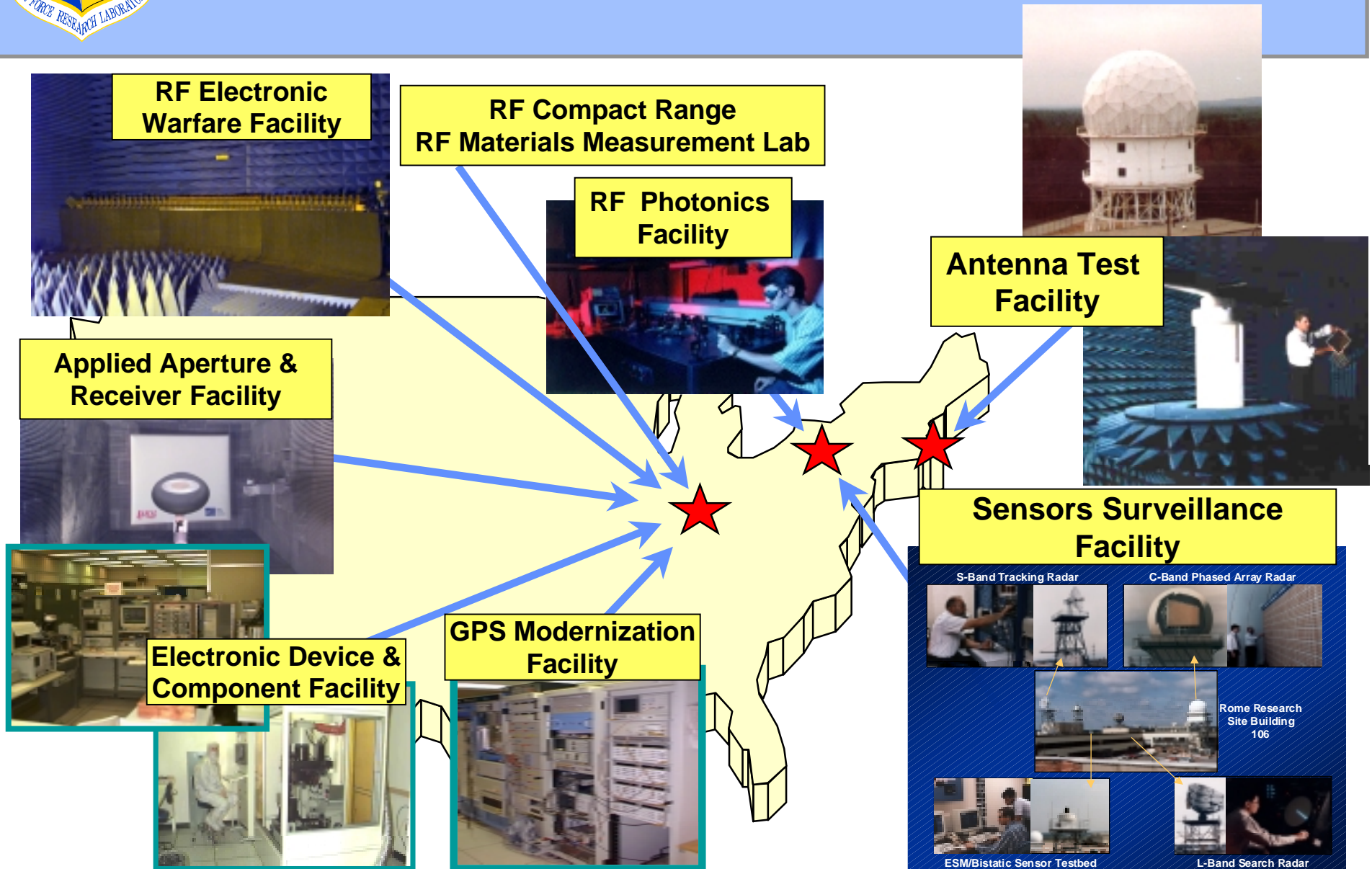


Platform Self Protection





# RF SENSORS FACILITIES



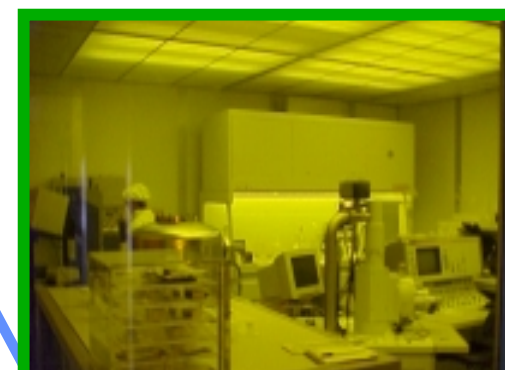


# EO SENSORS FACILITIES



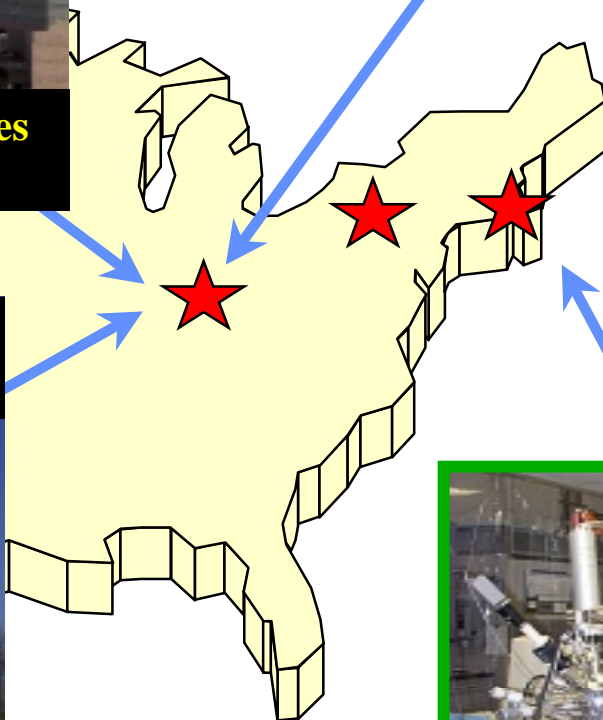
**EO/IR Warning & Countermeasures Development Facility**

**Laser Cross Section Range  
IR Cross Section Measurement Chamber**



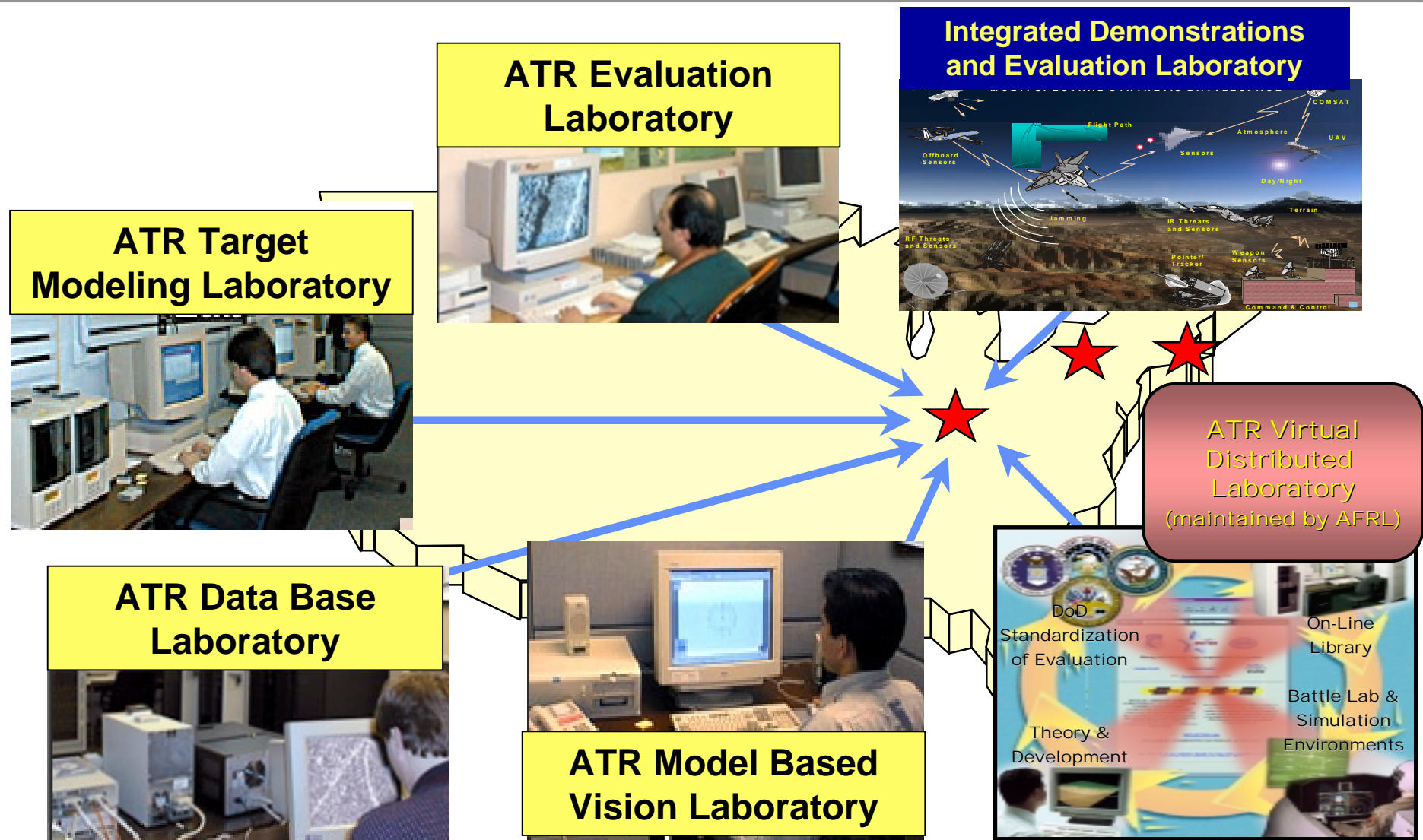
**EO Fabrication & Characterization Facility**

**Multi-Function EO Sensors Research Facility**





# AUTOMATIC TARGET RECOGNITION & SENSOR FUSION FACILITIES



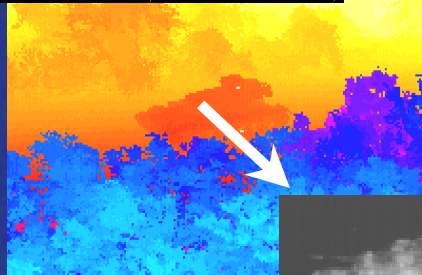
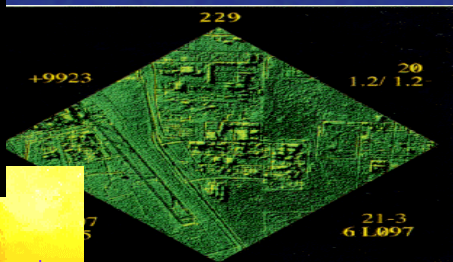
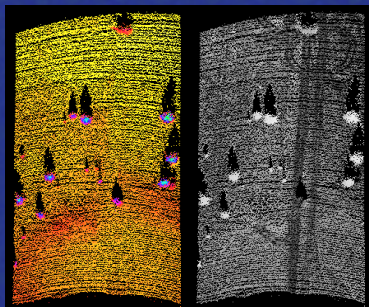


# **POTENTIAL AREAS OF COLLABORATION**

- **Urban Sensing**
- **Difficult Targets (WMD, Hidden, LO)**
- **Protection of Space Assets**
- **Domination of the EM Environment**
- **Compact Sensors**
- **Distributed Sensing & Sensor Webs**
- **Sensor Fusion**
- **Multi-Dimensional & Adaptive Sensing**
- **System Analysis**
- **Collaborative Environments**
- **High Performance Processing**
- **Sensor Modeling & Measurements**
- **Threat & Target Analysis**
- **Enabling Sensor Devices & Components**



# “No Sanctuary”



COCKPIT DISPLAY

